

WHAT IS CLAIMED IS:

1. A method for producing a consolidated cellulosic article, comprising

2 the steps of:

3 providing a mat of cellulosic material and binder resin;

4 providing a first contoured front platen having a first pattern;

5 providing a first contoured rear platen having a pattern generally

6 corresponding to the first pattern of the front platen;

7 consolidating the mat between the first contoured front platen and the
8 first contoured rear platen under heat and pressure to form a molded softboard having
9 a contoured front surface and a correspondingly contoured rear surface, the softboard
10 having a substantially uniform density and substantially uniform caliper;

11 removing portions of the molded softboard up to a predetermined
12 removal plane to form a softboard having a front surface and rear surface with desired
13 contours;

14 providing a second contoured front platen having a contour
15 substantially corresponding to the contour of the front surface;

16 providing a second contoured rear platen having a contour substantially
17 corresponding to the contour of the rear surface; and

18 consolidating the softboard between the second contoured front platen
19 and the second contoured rear platen, under heat and pressure.

2. The method of claim 1, wherein after the first consolidating step, the

20 mat has a density of approximately ten to approximately thirty pounds per cubic foot.

3. The method of claim 1, wherein the removing step is performed using

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a saw.

4. The method of claim 1, wherein the saw is a rotary scalper.

5. The method of claim 1, wherein the saw is a band saw.

6. The method of claim 1, further including the steps of gathering

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cellulosic material removed from the mat after the first consolidating step and reusing
the cellulosic material in subsequent iterations of the method.

7. The method of claim 1, further including the step of injecting steam

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into the mat during the at least one of the first and second consolidating steps.

8. The method of claim 1, wherein the removal step results in at least one

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planar top or bottom surface and wherein the second consolidating step is performed
using a flat platen.

9. A method of producing a consolidated cellulosic article, comprising
2 the steps of:
4 compressing a mat of cellulosic material and a binder resin between
first and second contoured platens to produce a softboard having first and second,
opposed, contoured sides;
6 removing cellulosic material from the softboard along one of the first
or second sides in a planar fashion; and
8 subsequently compressing the mat between third and fourth platens, the
third platen being contoured in a manner similar to the first side of the softboard, the
10 fourth platen being contoured in a manner similar to the second side of the softboard.
12. The method of claim 9, wherein the first and second platens are
2 similarly contoured.
14. The method of claim 9, wherein the compressing steps are performed
under heat and pressure.
16. The method of claim 11, wherein the pressure is in the range of about
2 five pounds per square inch to about one thousand pounds per square inch.
18. The method of claim 9, wherein the removing step is performed using
a rotary scalper.

14. The method of claim 9, wherein the removing step is performed using

2 a band saw.

15. The method of claim 9, further including the steps of gathering the

2 removed cellulosic material and reusing the removed cellulosic material.

16. The method of claim 9, further including the step of injecting steam

2 into the mat during the compression step.

17. A consolidated cellulosic article constructed in accordance with the

2 method of claim 9.

18. The method of claim 9, wherein the removing step results in a

2 softboard having at least one flat side, and wherein at least one of the third and fourth
platens is planar.

19. A system for producing a consolidated cellulosic article, comprising:

2 a primary press having first and second platens and a drive, the first

4 and second platens having opposed, complementarily contoured, die surfaces, the

drive being adapted to compress the first and second platens toward one another;

6 a removal tool, the tool including a blade for removal of cellulosic

material in a planar fashion; and

8 a secondary press having first and second platens and a drive, the first

and second platens having opposed die surfaces, the drive being adapted to compress

the first and second platens toward one another.

20. The system of claim 19, wherein the removal tool is a rotary scalper.

21. The system of claim 19, wherein the removal tool is a band saw.

22. The system of claim 19, wherein the at least one of the primary and

2 secondary presses includes a steam injector adapted to inject steam between the first

and second platens.

23. The system of claim 19, wherein at least one of the primary and

2 secondary presses include heating apparatus.

24. The system of claim 19, further including collection apparatus for

2 collecting cellulosic material removed by the removal tool.

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25. The system of claim 19, wherein at least one of the first and second platens of the secondary press is flat.